

In the Claims

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

1. (Currently Amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence of SEQ ID NO: 1 and is at least 2322 nucleotides in length,

wherein the hybridization conditions are 1) hybridization at 65°C in hybridization buffer that consists of 3.5 x SSC, 0.02% Ficoll, 0.02% polyvinyl pyrrolidone, 0.02% Bovine Serum Albumin, 2.5mM NaH₂PO₄, pH7, 0.5% SDS, 2mM EDTA, wherein SSC is 0.15M sodium chloride/0.015M sodium citrate, pH7; SDS is sodium dodecyl sulphate; and EDTA is ethylenediaminetetracetic acid and 2) washing in 2 x SSC at room temperature and then in 0.1 x SSC/0.1 x SDS at 68°C,

(b) a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence of SEQ ID NO: 3 and is at least 23 nucleotides in length,

wherein the hybridization conditions are 1) hybridization at 65°C in hybridization buffer that consists of 3.5 x SSC, 0.02% Ficoll, 0.02% polyvinyl pyrrolidone, 0.02% Bovine Serum Albumin, 2.5mM NaH₂PO₄, pH7, 0.5% SDS, 2mM EDTA, wherein SSC is 0.15M sodium chloride/0.015M sodium citrate, pH7; SDS is sodium dodecyl sulphate; and EDTA is ethylenediaminetetracetic acid and 2) washing in 2 x SSC at room temperature and then in 0.1 x SSC/0.1 x SDS at 68°C,

(c) nucleic acid molecules that differ from the nucleic acid molecules of (a) or (b) in codon sequence due to the degeneracy of the genetic code, and

(d) complements of (a), (b) or (c).

2. (Original) The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule comprises the nucleotide sequence set forth as SEQ ID NO: 1.

3. (Previously Presented) The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule consists of the nucleotide sequence set forth as SEQ ID NO: 3.

4. (Currently Amended) An isolated nucleic acid molecule selected from the group consisting of

(a) fragments of a nucleotide sequence set forth as SEQ ID NO: 1 that are at least ~~2322~~ nucleotides in length,

(b) fragments of a nucleotide sequence set forth as SEQ ID NO: 3 that are at least 23 nucleotides in length, and

(c) complements of (a) or (b).

5.-7. (Canceled)

8. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 1, operably linked to a promoter.

9. (Original) An expression vector comprising the isolated nucleic acid molecule of claim 4 operably linked to a promoter.

10. (Previously Presented) An isolated host cell transformed or transfected with the expression vector of claim 8.

11. (Previously Presented) An isolated host cell transformed or transfected with the expression vector of claim 9.

12.-67. (Canceled)

68. (Previously Presented) A composition, comprising:
an agent comprising the isolated nucleic acid molecule of claim 1, and
a carrier.

69.-79. (Canceled)

80. (Previously Presented) The isolated nucleic acid molecule of claim 4, wherein the fragment of (a) has a size selected from the group consisting of at least: 24 nucleotides, 26 nucleotides, 28 nucleotides, 30 nucleotides, 50 nucleotides, 75 nucleotides, 100 nucleotides and 200 nucleotides.

81. (Previously Presented) The isolated nucleic acid molecule of claim 4, wherein the molecule encodes a polypeptide which is immunogenic.

82. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 2 operably linked to a promoter.

83. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 3 operably linked to a promoter.

84.-85. (Canceled)

86. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 80 operably linked to a promoter.

87. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 81 operably linked to a promoter.

88. (Previously Presented) A composition, comprising:
an agent comprising the isolated nucleic acid molecule of claim 4, and
a carrier.

89. (Previously Presented) The isolated nucleic acid molecule of claim 4, wherein the fragment of (b) has a size selected from the group consisting of at least: 24 nucleotides, 26

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nucleotides, 28 nucleotides, 30 nucleotides, 50 nucleotides, 75 nucleotides, 100 nucleotides and 200 nucleotides.

90. (Previously Presented) An expression vector comprising the isolated nucleic acid molecule of claim 89 operably linked to a promoter.